

Go. 15320-18.1-82

No. 539 Waf 1st March 82
The Hon. W. H. Hudson

Sanctioned

24.2.82

Plt

24.2.82

P. W. D. 6th Circle.

From

The Superintending Engineer,

6th Circle.

To

The Chief Engineer
P. W. D.

No. 235 M. D.

Dated 18

Received

February 1882.

Enclosures.

No. 539 Waf 1st March 82

Cumburn Gudalur
Road:—

Requests sanction
for supplying the local Fund
bags with tools within the
limit of 2 1/2 p/c of the estimate for—

S.E. 6th Circle ✓

Trans. & Accounts ✓

Financial Department ✓

Sept 1-3-82-

As 27/2/82

With order
Sd/- in T. & A. Dept. R. & R.

SUPERINTENDING ENGINEER'S OFFICE, 6th CIRCLE.

No. 235 M.D.

Camp Tanjore 18th February 1882.

From

Colonel J. Beatty R.E.,

Superintending Engineer, 6th Circle,

To

Colonel C. F. Sankey C. B. R.E.,
Chief Engineer, D.P.W.,
Madras

Sir,

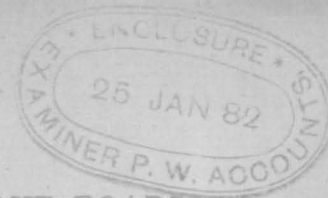
With reference to G.O. No. 153 W of
18th ultimo sanctioning the construction
of the Cumbum - Gudalur Road by the
Local Fund Establishment the Collector
states that he considers the necessary
tools and plant should be supplied from
Provincial Funds and as no provision
under that head was made in the esti-
mate, I have the honor to request sanc-
tion for supplying the Local Fund Engi-
neer with the articles he requires within
the usual limit of 2½ per cent of the estimate.

I have the honor to be,

Sir,

Your most Obedt. Servant,

J. Beatty - Colonel R.E.,
Superintending Engineer 6th Circle.



BUILDINGS AND ROADS.
CIVIL WORKS.

Govt. of (1882) Madras.

PUBLIC WORKS.

To

THE BOARD OF REVENUE,

&c., &c., &c.

Dated January, 18th.

Issued

Recd.

Encl.

G.O., 18th January 1882, No. 153 W.

JANUARY.

Nos. 90-91.

Road from Cumbum to the foot of the Guda-
lur Ghât. — Estimate for constructing a first-
class — sanctioned for execution by the
Local Fund Board, Dindigul Circle.

SUPERINTENDING ENGINEER'S OFFICE, 6th CIRCLE.

No. 235 M.D.

Camp Tanjore 18th February 1882.

From

Colonel J. Beatty R.E.,

Superintending Engineer, 6th Circle,

To

Colonel C. A. Sankey C. B. R.E.,
Chief Engineer, D.P.W.,
Madras

Sir,

With reference to G. O. No. 153 W of
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Your most Obedt. Servant,

J. Beatty - Colonel R.E.,
Superintending Engineer 6th Circle.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

18th January 1882, No. 153 W.

Buildings and Roads.
Civil Works.

Read the following papers:—

No. 90. From Lieutenant-Colonel J. BEATTY, R.E., Superintending Engineer,
Third Circle, to the Chief Engineer, Public Works Department, dated
Trichinopoly, 30th May 1881, No. 317 T.C.

I HAVE the honor to submit herewith an estimate of Rs. 78,700 for making a first-
class road, metalled and bridged through-
out, from Cumbum to the foot of the
Gudalur Ghât, in the Madura District.

2. The estimate was called for in G.O., No. 2828 W., of 7th December 1880,
and I regret that I have not been able to submit it sooner. The delay has been due
to the reduced state of the establishment and pressure of other work.

3. The piece of road now proposed to be made is about 10 miles long, and is
situated at the head of the Cumbum valley. It is of importance as being part of the
high road into north Travancore, *via* the Gudalur Ghât. A gravelled Local Fund
road, on which there is considerable traffic, leads from Ammayanayakanûr on the South
Indian Railway, *via* Periyakulam, to Cumbum; and I have no doubt when this short
but expensive section of the line is completed, and the portion of Gudalur Ghât in
British territory put in good order, there will be great increase of traffic between
Madura and Travancore.

4. The Cumbum-Gudalur road will be an expensive one to make for the follow-
ing reasons:—

I.—Labor and carriage are scarce and dear in that neighbourhood; the head
of the Cumbum valley being sparsely populated.

II.—Though the country is open and tolerably free from jungle (with the
exception of the lines of the principal streams, which are well clothed
with jungle,) it is reputed to be feverish and unhealthy.

III.—One considerable nullah and two minor ones, bearing the drainage of the
adjoining hills, and with very steep fall in their beds, cross the line of
road; these must become torrents at times of exceptional rain-fall in
the hills, and as their banks are thickly fringed with trees and jungle,
it becomes necessary to provide for the safety of the masonry works
upon them by allowing very ample height and width of waterway.

5. It will be observed, by the longitudinal section of the line, that there is a
total fall of 400 feet in the 10 miles from the foot of the ghât to Cumbum. The
line had been laid out and partly formed at some time; but having been left unfinished
and long neglected, it is now marked chiefly by the traces of side channels and the
few small masonry works. It is almost straight; the steepest gradient upon it is
one in 21, and that only for a short distance near the foot of the ghât.

6. The three principal streams are now the great obstacles to traffic on the line, owing to their deep channels and steep banks; and of course they are quite impassable when in flood. Otherwise, in dry weather it is, as an unmade road, a very practicable one for country-carts.

7. Between Cumbum and Gúdálúr the road passes over cotton soil; beyond Gúdálúr to the foot of the ghât a red clay, containing kunkur in places, is met with. Firewood is of course abundant in the neighbourhood, especially on the principal streams.

The most convenient site for brick-making is on the Kuruvanuthu, a little way above the site of the proposed bridge.

The best limestone, so far as yet ascertained, is found between the Shuragam and Kakanodai nullahs, and the best place for burning it will be at the latter stream. The lime-stone is found in the nodular form.

The stone most easily procurable is a kind of gneiss, of a grey colour, which can be burnt off in layers, and broken to sizes for building purposes. It will have to be carted $2\frac{1}{2}$ miles to the large bridges.

There is no good gravel available within many miles, but an inferior description is met with near the village of Gúdálúr. Disintegrated rock is also found near the foot of the hills, and material for metalling in abundance there, and in small quantities all along the line.

8. The works now proposed include the formation of a roadway 24 feet wide at top, of which 18 feet will be gravelled with the best material that may be found near the line, to a thickness of 10 inches. The berms and side slopes, where the road is on embankment, are to be turfed. All streams are to be provided with suitable masonry works.

9. The estimate provides for building the three principal bridges with coursed rubble in chunam, carefully grouted and pointed. The arch-work is to be of brick, faced with cut-stone; the cut-waters also being of large stone, carefully fitted and laid. The foundations of the Kuruvanuthu bridge are to be protected, in the lower part of the bed which is sandy, with a masonry flooring and aprons with retaining walls. Elsewhere the foundations will be protected with floorings and aprons of packed stone, strengthened with piling.

10. The minor masonry works, consisting of sixteen new tunnels and one road dam, are to be built of brick in chunam; covering stones being used instead of arch-work, as these can be obtained at a reasonable price.

11. The existing masonry works, which consist of fifteen road dams, varying from 23 to 74 feet in length between wings, will be repaired and strengthened with rear aprons.

12. In an appendix to this letter I have given an abstract showing the nature and cost of the several items in the estimate now submitted.

13. As recommended in my letter No. 166 T.C. of 6th instant, in the case of the Gúdálúr Ghât repairs, I would suggest that this work also should be handed over to the Local Fund Board of the Dindigul Circle, if they are willing to undertake it on the understanding that it is to be carried out in strict accordance with the plans and specifications that accompany the estimate.

C.E. No. 1402.

REFERRED, in continuation of No. 1242, dated 18th May 1881, to the Revenue Department, for inquiry whether the Local Fund Board, Dindigul Circle, will undertake the work if funds be provided by the Public Works Department.

13th June 1881.

(Signed) C. C. RAWSON, Captain, R.E.,
Ag. Deputy Chief Engineer, P.W.D.

To the Revenue Department, with twenty-four enclosures.

No. 90-A. Endorsement of the Chief Secretary to Government, Financial Department, dated 28th November 1881, No. 1910.

Proceedings of the Board of Revenue, dated 22nd November 1881, No. 2907.

Read the following letter from H. J. STOKES, Esq., President of the Local Fund Boards, Madura, to the Secretary to the Board of Revenue, dated _____, No. 168.

In continuation of my letter No. 150 of the 7th instant, I have the honor to

- * 1. Estimate for the repair of the Ghât road.
2. Superintending Engineer's letter, with 24 enclosures, No. 3177 C., dated 30th May 1881, forwarding estimates for the repairs of the Cumbum road.

forward herewith copy of Mr. Hardy's letter, No. 3 of the 20th idem, submitting proposals for repairing the Cumbum-Gúdálúr roads, &c.

The estimates,* &c., for both the road works are returned.

Read also G.O., Financial Department, dated 8th November 1881, No. 2167.

THE President's letter read above is submitted for the orders of Government in continuation of Board's Proceedings, dated 1st November 1881, No. 2582.

(A true Copy and Extract.)

(Signed) E. GIBSON,
Acting Sub-Secretary.

TRANSFERRED to the Public Works Department, with reference to G.O., No. 2864, dated 16th November 1881.

(Signed) E. S. LAFFAN,
for Chief Secretary.

No. 90-B. From the Superintending Engineer, Sixth Circle, dated 28th November 1881, No. 82 M.D.

No. 90-C. Proceedings of the Board of Revenue, dated 12th December 1881, No. 3210.

No. 90-D. From the Superintending Engineer, Sixth Circle, dated 31st December 1881, No. 135 C.

No. 91. ORDER THEREON, 18th January 1882, No. 153 W.

THE estimate for constructing a first-class road from Cumbum to the foot of the Gúdálúr Ghât, the amount of which has been reduced by the Chief Engineer from Rs. 78,700 to Rs. 72,148, by limiting the width of metalling to 12 instead of 18 feet, is sanctioned for execution by the Local Fund Board, Dindigul Circle.

2. A sum of Rs. 13,180 is available for the work in the current year's Provincial Budget, and Rs. 20,000 will be provided in the budget of the ensuing year. The Local Fund Board will be kept in funds by the Superintending Engineer in the manner prescribed in G.O., No. 1375 W., dated 14th June 1880. The petty establishment required by the Local Fund Engineer should be charged to the estimate.

4 PUBLIC WORKS DEPARTMENT, 18TH JANUARY 1882, No. 153 W.

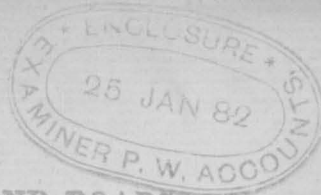
3. This sanction has been registered as Provincial No. 113 W. of 1881-82, and classified as Communications, Original Works.

(True Extract.)

(Signed) R. H. SANKEY, Colonel, R.E.,
Secretary to Govt., P.W.D.

To the Board of Revenue, with twenty-one enclosures.
„ Superintending Engineer, Sixth Circle.
„ Examiner, Public Works Accounts, with duplicate Abstract Estimate.
„ Financial Department.

Exd. S. T. Austin.
Spare Copies



BUILDINGS AND ROADS.
CIVIL WORKS.

Gobt. of (1882) Madras.
PUBLIC WORKS.

To

THE BOARD OF REVENUE,
&c., &c., &c.

Dated January, 18th.

Issued

Recd.

Encl.

G.O., 18th January 1882, No. 153 W.

JANUARY.
Nos. 90-91.

Road from Cumbum to the foot of the Guda-
hir Ghat.—Estimate for constructing a first-
class — sanctioned for execution by the
Local Fund Board, Dindigul Circle.

No 407

Tanjore Division Office
Tanjore 16 February 1882

From

The Executive Engineer Tanjore Dn
To

The Superintending Engineer to Circle
Ser

Reference — Circular No 1808 JK
3-2-82

Encl

In forwarding my progress
Report for January (Buildings
and Roads) I have the honor to
explain in reference to the surrender
of Rs 6500 from the allotment of
Rs 9000 for the repairs of Thiru-
vadamamthur Palace. The work has
been stopped some three months
ago at the request of the Maharaja
owing to a misunderstanding
on his part. He is now willing
that the repairs should be resumed
but I cannot undertake to spend
more than the Rs 700 balance of
the reduced allotment. The surrender
of grant for minor Postal works is
made at your request. The surrenders
from Road grants have been at ady

explained but may be briefly noted for
your information.

- No 8 Surrender is saving on estimate
" 9 Surrender owing to allotment
having been given too late
for earthwork to be done fields
being under wet cultivation—
" 12. Allotment of Rs 28,12 made
by mistake there being only
a small balance from estimate—
" 16 Allotment given too late —

I have the honor to be
Sir

Your most Obedt servant

J. Hughes

Executive Engineer

[Signature]

No 1932 Jg.

Sup^r Engineer's office
Trichinopoly. 21st February 1882.

From

Colonel J. Beatty Rb

Sup^r Engineer, Circle.

To.

Colonel R. H. Sankey C.B. Rb.

Chief Engineer P.W.D.

Sir,

Enclosure 1.

I have the honor to inform you that the Executive Engineer Sanjore has just surrendered Rs 6,500 from the grant for the repairs of the Tiruvadamardur Palace.

2. I send his letter at once for your perusal, but as the surrender of such a large sum so late in the year needs further explanation, I have called upon him for it, and shall forward it as soon as received.

I have the honor to be

ⁱⁿ
your most obedient servant.

J. Beatty. Col Rb.

Sup^r Engineer, Circle.

J. Beatty

J. W. S. 1
1266/82



207,07

To
The Chief Engineer
to Circle

Recd 1st Feb 1882

and

Progress Report for
January 1882 - District
the and salaries
about purchase of
materials for repair
Tiruvadamardur
Palace -

S. N. C. No. 1266

From

The Sup^r Engineer,
6th Circle

To

The Chief Engineer,
P. W. D.

No. 1932 T. J.

Dated 21st February/82.

Recd. 27

5075910. 9.4.81.

Recd. 1.

Tiruvadamamthur Palace.

* Reports that the Langior
officer has surrendered
Rs 6500 from the grant for
the —.

P.C.

Superintendent

No. 536W.

PUBLIC WORKS DEPARTMENT.

PROCEEDINGS OF THE MADRAS GOVERNMENT.

Under date the 1st March 1882
Read the following:—

From
The S. Eng^r. 6th Circle

A.E. No. 1932 T. J. of 21st Feb/82

The surrender of
Rs 6500/- by the Sup^r Eng^r.
6th Circle from the Prov^d.
Repair grant ^{of Rs 9000/-} allotted
for the repairs of the Tiru-
vadamamthur Palace
will be credited to the
Reserve with Govt.

En

28.2.82

S. E. 6th circle
Enr. P. W. D.

Recd 3-3-82.